Move the following definitions to chapter 100:

"Appliances" means household and commercial devices such as refrigerators, freezers, kitchen ranges, air-conditioning units, dehumidifiers, gas water heaters, furnaces, clothes washers, clothes dryers, dishwashers, microwave ovens and commercial coolers with components containing mercury, refrigerants, or PCB-containing capacitors.

"Ballast" means an electrical device containing capacitors for the purpose of triggering high-level electrical components. A ballast provides electrical balance within the high-level electrical component circuitry.

"Capacitor" means a device for accumulating and holding a charge of electricity that consists of conducting surfaces separated by a dielectric fluid.

"CFC" or *"CFCs"* means chlorofluorocarbons, including any of several compounds used as refrigerants.

"Demanufacturing" means the removal of components, including but not limited to PCB-containing capacitors, ballasts, mercury-containing components, fluorescent tubes, and refrigerants, from discarded appliances.

"DOT-approved container" means those containers approved by the U.S. Department of Transportation, the agency responsible for shipping regulations for hazardous materials in the United States.

"Fixed facility" means a permitted appliance demanufacturer operating at a permanent location.

"Fluff" means the residual waste from the shredding operation after metals recovery.

"HCFC" or *"HCFCs"* means hydrochlorofluorocarbons, including any of several compounds used as refrigerants.

"Mercury-containing components" means devices containing mercury. Examples include, but are not limited to, thermostats, thermocouples, mercury switches and fluorescent tubes.

"Mobile operation" means a permitted appliance demanufacturer that has equipment capable of operating in an area away from a fixed, permitted location.

"PCB" or *"PCBs"* means polychlorinated biphenyl, which is a chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees, or any combination of substances that contain polychlorinated biphenyl.

"Point of demanufacturing" means the actual location of demanufacturing for fixed facilities and mobile operations.

"Reclaim" means to reprocess refrigerant to an EPA ARI-700-88 standard.

"Recovery" means to remove all refrigerants to EPA standards.

"Small capacitor" means a capacitor which contains less than 1.36 kg (3 lbs) of dielectric fluid. The following assumptions may be used if the actual weight of the dielectric fluid is unknown. A capacitor whose total volume is less than 1,639 cubic centimeters (100 cubic inches) may be considered to contain less than 1.36 kg (3 lbs) of dielectric fluid, and a capacitor whose volume is more than 3,278 cubic centimeters (200 cubic inches) must be considered to contain more than 1.36 kg (3 lbs) of dielectric fluid. A capacitor whose volume is between 1,639 and 3,278 cubic centimeters may be considered to contain less than 1.36 kg (3 lbs) of dielectric fluid if the total weight of the capacitor is less than 4.08 kg (9 lbs).

DIVISION VII
DISCARDED APPLIANCE DEMANUFACTURING

567—102.600(455D) Purpose, Applicability and Compliance. This chapter is to ensure the proper removal and disposal of electrical parts containing polychlorinated biphenyls (PCBs), components containing mercury, and refrigerants (e.g., CFCs and HCFCs) from discarded appliances.

102.600(1) All discarded appliances must be demanufactured pursuant to this division before being disposed of or recycled. This division does not apply to the service, repair, reuse, or rebuilding of appliances or components for their original purpose. These rules do not apply to the removal of capacitors, refrigerants, or components containing mercury during the maintenance or service of equipment containing such items.

102.600(2). Compliance with this division in no way relieves the appliance demanufacturer of the responsibility of complying with all other local, state, or federal statutes, ordinances, and rules and other applicable requirements.

567—102.601(455B,455D) Definitions. The definitions in Iowa Code section 455B.301 and in 567—Chapter 100, apply to this division.

567—102.602(455D) Storage and handling of appliances prior to demanufacturing.

102.602(1) Any person collecting and storing discarded appliances must store the appliances so as to prevent electrical capacitors, refrigerant lines and compressors, and mercury-containing components from being damaged and allowing a release into the environment.

102.602(2) No method of handling discarded appliances may be used which in any way damages, cuts or breaks refrigerant lines or crushes compressors, capacitors, or mercury-containing components, or may cause a release of refrigerant, PCBs or mercury into the environment.

102.602(3) No more than 1,000 discarded appliances may be stored at a location prior to demanufacturing.

102.602(4) Discarded appliances may not be stored for more than 270 days before being demanufactured.

567—102.603(455D) Appliance demanufacturing permits.

102.603(1) *Permit required.* A person must obtain a Solid Waste Management permit as per subrule 567-100.4(2) for appliance demanufacturing from the department before conducting any demanufacturing activities.

102.603(2) *Types of permits.*

a. A person may request a permit that excludes appliances that contain a particular type of material (e.g., refrigerants, sodium chromate, PCBs, or mercury switches). Persons may not demanufacture or place their unique mark on an appliance that once contained a material that is excluded from their permit. An appliance demanufacturing facility must clearly post the types of appliances the facility does not accept.

b. Permits may be issued for both fixed facilities and mobile operations.

102.603(3) *Factors in permit issuance decisions.* The department may request that additional information be submitted for review to make a permit issuance decision. The department may review and inspect the facility, its agents and operators, and compliance history. The department may review whether a good-faith effort to maintain compliance and protect human health and the environment is being made and whether a compliance schedule is being followed. The department may issue a permit on a trial basis. After review of the permit application or a trial period, the department may require financial assurance as a condition of a permit. Any such condition will be consistent with those types detailed in Iowa Code section 455B.301(9).

567—102.604(455D) Appliance demanufacturing permit application requirements. In addition to the permit application requirements in rule 567-100.5, the applicant shall submit the following:

1. Type, source and expected number or weight of appliances to be handled per year.
2. For a fixed facility, schematic site plans of the facility, including the schematic floor plans of any buildings showing where activities will take place and where waste is stored.
3. For mobile operations, schematic plans, or a description and photographs, of the mobile van or trailer.
4. The EPA-approved refrigerant removal equipment that will be used.
5. Operation plan: a detailed summary of the activities that will be performed on each type of

appliance considered for demanufacturing. This summary must include step-by-step activities of the demanufacturing process.

6. A contingency plan detailing the specific procedures to be used in case of equipment breakdown or fire, including methods to be used to remove or dispose of accumulated waste.

7. A copy of the NPDES Stormwater General Permit Authorization number, if applicable.

8. A copy of EPA Notification of PCB Activity Form 7710-53 and a return response from EPA.

9. Documentation showing compliance with rule 567—102.606.

10. A copy of the unique mark to be applied to each discarded appliance after demanufacturing.

11. Documentation that a permanent appliance demanufacturing facility meets local zoning requirements.

567—102.605 (455D) Operations. The following removal and disposal requirements must be met by both fixed facilities and mobile operations.

102.605 (1) Demanufacturing of appliances must take place on an impervious floor, including but not limited to concrete, ceramic tile, or metal, but not wood. Any spills must be contained and picked up with proper equipment and procedures and be disposed of properly.

102.605 (2) The point of demanufacturing must be located at least 50 feet from a well and any water of the state.

102.605 (3) The facility must be located above the 100-year floodwater elevation.

102.605 (4) A permanent facility must meet local zoning requirements.

102.605 (5) Every operation must have a unique mark which signifies all refrigerants, PCB-containing articles, and mercury-containing components have been removed. The unique mark must be a minimum of nine inches by nine inches. The unique mark must be applied to appliances after demanufacturing.

567—102.606(455D) Training. At least one owner or employee of an appliance demanufacturing facility must have a training certificate from a department-approved demanufacturer training course. A person who has completed the department-approved training course must be on site at all times when discarded appliances are being demanufactured. To be approved by the department, the training must, at a minimum, cover the following topics.

1. State and federal regulations for the removal, storage, transportation, and disposal of refrigerant, PCB-containing articles, mercury-containing components, from appliances.

2. Record-keeping requirements.

3. Safety precautions for handling appliances and hazardous materials.

4. Spill prevention and cleanup procedures appropriate for appliance demanufacturing.

5. The proper methods of loading and unloading discarded appliances.

6. General demanufacturing procedures.

567—102.607 (455D) Refrigerant removal requirements.

102.607(1) All demanufacturers of refrigerant containing appliances shall comply with 40 CFR 82.155 as amended March 7, 2025.

102.607(3) The removal of refrigerant from refrigeration appliances must take place in an area where the temperature of the surrounding air and of the appliance being demanufactured is 45 degrees Fahrenheit or greater.

102.607(4) Facilities that are not EPA-certified refrigerant reclaimers must transport recovered refrigerant to an EPA-certified reclamation facility or properly dispose of the refrigerant at an EPA-permitted facility. Reclamation may take place on-site only if the appliance demanufacturing facility is certified as a reclaimer by the EPA.

102.607(5) The following rules apply to the demanufacturing of appliances containing compressor oil.

a. Compressor oil from refrigeration unit compressors may be removed during the demanufacturing process, and any oil removed must be stored in accordance with 40 CFR 279.22 as amended March 3,

2025.

b. Compressor oil is not hazardous and may be burned in used oil-fired space heaters, provided the heaters have a capacity of 0.5 BTUs (British thermal units) per hour or more.

c. Compressor oil may be sold to a marketer of used oil.

102.607(6) The following rules apply to the demanufacturing of ammonia gas-operated refrigerators and air conditioners.

a. Ammonia gas must be vented into water.

b. Sodium chromate must be removed from refrigeration equipment containing sodium chromate.

c. Sodium chromate liquid is a hazardous waste and must be disposed of at an EPA-permitted facility.

d. Removal of sodium chromate liquid must take place on an impervious surface. In case of a spill, the spilled liquid and the material used as absorbent must be handled as a hazardous waste and disposed of as a hazardous waste.

e. Sodium chromate must be stored in a DOT-approved container that shows no sign of damage. The container must be labeled with a proper EPA-approved chromium label stating "chromium" or "hazardous waste" as required by 40 CFR 262.32 as amended March 3, 2025 and 49 CFR 172.304 as amended March 3, 2025 in both English and the predominant language of any non-English-reading workers.

f. Prior to shipment, sodium chromate must be packaged to prevent leakage, and all containers must be sealed.

g. A person generating sodium chromate waste must maintain records to determine if the person is a very small-quantity generator, small-quantity generator, or large-quantity generator of hazardous waste.

567—102.608(455D) Mercury-containing component removal and disposal requirements.

102.608(1) All components containing mercury shall be removed from appliances. Precautions shall be taken to prevent breakage of the mercury-containing components and the release of mercury.

102.608(2) All mercury-containing component storage containers must be labeled with the proper EPA-approved mercury label stating "Universal Waste—Mercury Containing Equipment," "Waste Mercury-Containing Equipment" or "Used Mercury-Containing Equipment" in both English and the predominant language of any non-English-reading workers.

102.608(3) The date when the first mercury-containing component was placed in the container shall be affixed to the container.

102.608(4) Mercury-containing components may be stored for no longer than one year.

102.608(5) Accumulation of mercury-containing components shall not exceed 5,000 kg (11,025 lbs) at any time.

102.608(6) All mercury containers must be sealed prior to shipment.

102.608(7) All components containing mercury must be disposed of at an EPA-approved mercury recycling/recovery facility.

102.608(8) Fluorescent tubes, lamps, bulbs, and similar items must be placed in a container and packaged to prevent breakage for shipment to an EPA-approved recycler or must be processed in a manner that complies with state and federal regulations.

102.608(9) All mercury-containing components must be managed in accordance with 40 CFR 273 as amended March 3, 2025, and all state and federal regulations.

567—102.609(455D) Capacitor removal requirements.

102.609(1) All capacitors must be removed from discarded appliances unless the appliance manufacturer certifies in writing that no PCBs were used in the manufacture of the appliance.

102.609(2) Capacitors that meet one or more of the following criteria may be disposed of or recycled as solid waste. The capacitor:

a. Is proven to be free of PCBs by an approved laboratory.

b. Is imprinted by the manufacturer with the words "No PCBs" on the body of the capacitor.

c. Is certified in writing by the manufacturer of the capacitor not to contain PCBs.

d. Does not contain dielectric fluid.

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102.609(3) The following rules apply to the storage and disposal of PCB-containing items. PCB-containing items must be stored and transported according to the Toxic Substances Control Act (TSCA) and 40 CFR 761 as amended March 3, 2025 and disposed of at a TSCA-permitted disposal facility. Facilities used for the storage of PCB-containing items designated for disposal must meet the following storage requirements:

a. Facilities shall register with the US EPA and receive an EPA identification number.

b. PCB-containing items must be stored in a manner that provides adequate protection from the elements and adequate secondary containment. This storage must take place on an impervious material above the 100-year floodwater elevation.

c. The point of demanufacturing must be located above the 100-year floodwater elevation.

d. All capacitors containing or suspected of containing PCBs must be placed in a DOT-approved container that shows no signs of damage. The bottom of the container must be filled to a depth of two inches with absorbent material such as sand, oil-dry, or kitty litter.

e. All DOT-approved containers must be affixed with the large PCB mark as described in 40 CFR 761.45 as amended March 3, 2025.

f. The date when the first PCB-containing item was placed in the container shall be placed on the container.

g. Nonleaking small PCB capacitors may be stored for up to 30 days from the date of removal in an area that does not comply with the requirements in 102.609(4)*"a"* to *"f"* provided a notation is placed on the PCB capacitor indicating the date the item was removed from the appliance.

h. PCB-containing items may be stored for no more than 270 days. The storage area must be labeled with the PCB M_L mark. The storage area must be inspected every 30 days, and the inspection must be documented.

i. If a demanufacturer stores more than 45 kg (99.4 lbs) at any one time, the demanufacturer must maintain annual written records and the annual document log as required by 40 CFR 761.180 as amended March 3, 2025.

102.609(4) All capacitors not meeting the criteria in subrule 102.609(2) must be disposed of as follows:

a. Appliance demanufacturers may dispose of PCB capacitors by one of two means. If the facility is a very small quantity generator (VSQG), the demanufacturer may send the properly marked and dated container of capacitors to a regional collection center (RCC) licensed under 567—Chapter 103 for disposal. If the facility is not a VSQG, the capacitors must be manifested and shipped for disposal in accordance with 40 CFR 761.65 as amended March 3, 2025.

b. Disposal through an RCC. Shipments from a VSQG to an RCC shall be considered equivalent to disposal as municipal solid waste for the purposes of 40 CFR 761.60(b)(2)(iii) as amended March 3, 2025; capacitors may not be disposed of in a landfill. An RCC may accept PCB capacitors without having to provide a certificate of disposal. The RCC shall provide the appliance demanufacturer with a receipt specifying the name of the RCC, the appliance demanufacturer from which the capacitors were received, the weight or number of capacitors, and the date the capacitors were received. Copies of this document must be retained for three years at both locations. The date that capacitors are received shall be considered the date the capacitors are determined to be PCB-containing waste for the purposes of 40 CFR 761.65(a)(1) as amended March 3, 2025. Capacitors may be consolidated in DOT-approved shipping containers for transport for disposal.

c. Disposal through EPA-approved facility for the disposal of PCB waste. The labeled and dated DOT-approved container must be transported by a transporter with a valid EPA ID number, using an EPA Uniform Hazardous Waste Manifest Form. All containers must be sealed prior to shipment. The demanufacturer has one year from the date the first PCB-containing item is placed in the container to properly dispose of the contents by incineration, recycling, or another approved method pursuant to 40 CFR 761.60(b) as amended March 3, 2025 or 761.60(c) as amended March 3, 2025. Disposal must be

documented and the record kept by the demanufacturer for three years from the date the PCB-containing waste was accepted by the initial transporter.

d. PCB-containing items shall be properly disposed of within one year of removal from the appliance. The generator shall obtain a certificate of disposal within 30 days of the date that disposal of the PCB-containing items was completed at a PCB disposal facility. If a certificate of disposal is not obtained within 30 days, the EPA regional administrator must be notified pursuant to 40 CFR 761.218(d) as amended March 3, 2025.

567—102.610(455D) Spills.

102.610(1) Any spills from leaking or cracked capacitors must be handled by placing the capacitor and any contaminated rags, clothing, and soil into a container for shipment to an EPA-approved waste disposal facility. Spills of liquid PCBs which occur outside a DOT-approved container must be cleaned and the cleanup verified by sampling as described at 40 CFR 761.130 as amended March 3, 2025. Detailed records of such cleanups and sampling must be maintained as described at 40 CFR 761.180 as amended March 3, 2025.

102.610(2) Mercury spill kits (with a mercury absorbent in the kits) must be on hand and used in the event of a mercury spill. Any waste from the cleanup of a mercury spill must be disposed of as a hazardous waste.

102.610(3) In the event a spill results in a hazardous condition, the facility must follow the requirements in 567-105, Division I.

567—102.611(455D) Record keeping and reporting.

102.611(1) Annual reports with the information required in subrule 567—102.611(2) are:

a. To be submitted to the solid waste and contaminated sites section of the DNR central office in Des Moines;

b. Due January 31 each year for the activities of the previous calendar year;

c. To be submitted on forms provided by the department, and

d. To be retained by the permit holder for at least three years.

102.611(2) Annual reports shall contain the following information for the previous calendar year.

a. Number of appliances demanufactured in each of the following categories:

(1) Refrigerators and freezers.

(2) Commercial coolers.

(3) Air-conditioning units.

(4) Dehumidifiers.

(5) Gas water heaters.

(6) Furnaces.

(7) Clothes washers and clothes dryers.

(8) Dishwashers.

(9) Microwave ovens.

(10) Other items containing mercury, refrigerant or PCB-containing articles.

b. Number of mercury switches removed from appliances.

c. Number of mercury thermocouples removed from appliances.

d. Date the first item was placed in the mercury storage drum that is in use on December 31.

e. Number of fluorescent tubes removed from appliances.

f. Number of sodium chromate-containing appliances shipped to another demanufacturer.

g. Amount of refrigerant removed.

h. Number of PCB capacitors removed.

i. Number of PCB ballasts removed.

j. Date the first PCB-containing item was placed in the storage drum that is in use on December 31.

102.611(3) A permitted appliance demanufacturing facility shall retain the following records on site for a minimum of three years.

a. All hazardous waste manifests and bills of lading for shipments of refrigerant, mercury switches,

PCB-containing materials and any hazardous waste.

b. Receipts for any sodium chromate-containing units that were sent to another facility for processing.

c. Documentation of destruction or receipt from a regional collection center for all PCB materials shipped.

d. Documentation of inspections of the PCB storage area as required by paragraph 102.607 "*h.*"

e. Annual written records and annual document log if required by paragraph 102.607(4)*"i."*

f. Copy of the annual report as required in subrule 102.609(1)

567—102.612(455D) Appliance demanufacturing facility closure requirements. In addition to the requirements in 100.10, an appliance demanufacturing facility shall do the following prior to closure:

1. Remove all appliances that have not been demanufactured.
2. Properly dispose of all refrigerant, PCBs, mercury and all hazardous materials.
3. Submit an annual report covering January 1, through the last disposal of hazardous materials, PCBs and refrigerant.

567—102.613(455D) Shredding of appliances.

102.613(1) Facilities shredding demanufactured appliances shall sample the fluff from the shredding of demanufactured appliances at least quarterly and analyze the fluff for the presence of PCBs, and according to the toxicity characteristic leaching procedure (TCLP) for arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. The waste shall be sampled once a day for seven consecutive working days to make a composite sample. If the concentrations of heavy metals do not exceed concentrations listed in 40 CFR 261.24 as amended March 3, 2025, the fluff may be landfilled in Iowa. Results must be retained on site for a minimum of three years and be submitted to the department within 30 days of the end of each quarter.

102.613(2) Fluff from the shredding of demanufactured appliances may be sampled and tested by the department at any time.

102.613(3) A person or facility engaged in demanufacturing in the state may not shred, crush, or bale any appliances that have not been demanufactured. A person or facility located in Iowa that does not engage in demanufacturing but accepts appliances from demanufacturers for recycling or disposal may shred, crush, or bale only appliances that have been demanufactured in accordance with federal regulations and the laws of the state from which the appliances are received.

These rules are intended to implement Iowa Code section 455D.6(4)